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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/601,241	01/17/2002	Hidekazu Tanaka	2000-0893A	8749

7590

05/05/2005

Wenderoth Lind & Ponack
Suite 800
2033 K Street NW
Washington, DC 20006

EXAMINER

LEE, PING

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/601,241

Applicant(s)

TANAKA, HIDEKAZU

Examiner

Ping Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/29/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The substitute specification filed 11/29/04 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 8-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fumiyasu et al (JP 07162990 A) in view of Olsson (US 5,913,178).

Regarding claims 8, Fumiyasu et al (hereafter Fumiyasu) disclose the claimed speaker apparatus in Fig. 2 with the exception of the microphone being placed at a position where the at least sound pressure of resonance occurring in a longitudinal direction, in a latitudinal direction orthogonal to the longitudinal direction, and in a direction orthogonal to both the longitudinal direction and the latitudinal direction of the acoustic pipe is low enough so as not to cause oscillation.

Olsson teaches that a pipe would cause oscillation due to resonant frequencies. By placing microphone at selected location, Olsson teaches that this problem would be minimized. The pipe on Olsson is a narrow as shown in Fig. 1. So the sound pressure of resonance occurring in a longitudinal direction in Olsson is inherently low enough so

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as not to cause oscillation. Thus, it would have been obvious to one of ordinary skill in the art to modify Fumiyasu's speaker apparatus in view of Olsson by testing and selecting a microphone's position for at least sound pressure of resonance occurring in a longitudinal direction, in a latitudinal direction orthogonal to the longitudinal direction, and in a direction orthogonal to both the longitudinal direction and the latitudinal direction of the acoustic pipe is low enough in order to minimizing the oscillation picked up by the microphone to stabilize the feedback control.

Regarding claim 9, although neither Fumiyasu nor Olsson shows a bracket for mounting the microphone, one skilled in the art would have expected that the microphone would work equally well by using any well known fastening means, including a bracket, to mount the microphone inside the pipe in front of the speaker.

Regarding claims 10 and 11, Fumiyasu shows that the sound pressure of at least of second and third pipe resonance is low enough so as not to cause oscillation (comparing Figs. 4 and 7). Furthermore, Olsson teaches minimizing at one of a second and third pipe resonance.

Regarding claims 12-15, Fumiyasu shows the adder/subtractor (11) and a microphone amplifier (10) and a subtractor (8).

Response to Arguments

4. Applicant's arguments filed 11/29/04 have been fully considered but they are not persuasive.

Applicant argued that Olsson fails to disclose or suggest the placement of the microphone as recited in claim 8.

As agreed by applicant, Olsson teaches how to place the microphone at the position as a function of the pipe length in the longitudinal direction. This reads on the claimed limitation "at least sound pressure of resonance occurring in a longitudinal direction". Therefore, Olsson teaches the claimed limitation.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

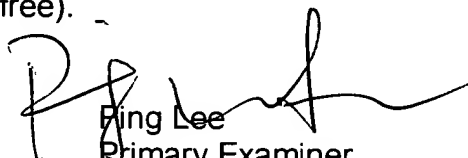
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ping Lee whose telephone number is 703-305-4865. The examiner can normally be reached on Monday and Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh N. Tran can be reached on 703-305-4040. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Ping Lee
Primary Examiner
Art Unit 2644

pwl